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ABSTRACT

The social implications of the changes in agricultural structures in rural America (i.e., the family farm structure in which labor, capital, and management are provided by the family; the corporate-integratee structure in which the capital is obtained through a formal contract with an agribusiness organization and the integratee furnishes the land, labor, and facilities; and the corporate-farmhand structure in which big corporations own the land and hire the labor) are examined. The community involvement of workers in the family farm structure is compared to that of workers in the corporate-integratee and the corporate-farmhand structures. In a county with a large number of contract poultry producers and only one major town, a random sample of 24 family farm units, consisting of 48 workers, and 28 owner-managers and 85 workers, which comprised the sample for the corporate-integratee and the corporate farmhand workers was used to measure dimensions of alienation and community involvement. Findings indicated that (1) the corporate farmhand workers were less involved in community activities than the corporate-integratee or the family farm workers; (2) the world perceptions held by the corporate-farmhand workers were more similar to those held by alienated persons; and (3) little difference existed between corporate-integratee and family farm workers with regard to community involvement. (NQ)

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SOCIOLOGICAL DIMENSIONS OF AGRICULTURAL STRUCTURES IN THE UNITED STATES

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SOCIOLOGICAL DIMENSIONS OF AGRICULTURAL STRUCTURES IN THE UNITED STATES

Agriculture remains the major industry in much of rural America today. Thus, any model concerned with the development of rural communities must necessarily acknowledge the changes taking place in the food and fiber industry. One of the changes resulting from increased agricultural technology is the increase in the size of farms and the concomitant decrease in number. This decrease has had serious impact on many small communities which originally provided services for a much larger population. (Nesmith, 1967)

Another change which has begun receiving more attention in recent years that may have implications for rural communities is the change in the organizational structure of the basic production unit. Historically the family farm has been the major organizational structure in United States agriculture. A family farm is usually defined as an agricultural production unit in which the farm family provides most of the capital, management and labor. While a recent report notes that there is no evidence of the increasing predominance of the larger than family farm (Scofield and Coffman, 1968), one of its authors concludes:

> "Considering all the evidence to date, I believe we must conclude that 'outside' corporations have not as yet taken over any sufficient proportion of the total farm production. Still, there are forces at work that are altering the business organization and capital structures of firms producing food products." (Scofield, 1970, p. 17.)

One of the forces at work is the alteration of the marketing system. Wilkening (1970) and Breimyer (1965) discuss factors which have lead to the centralization of the agricultural marketing system and the pressure this change in the marketing system is exerting for change in the structure of agriculture.

Another force exerting pressure to change the predominant type of organizational structure is the increasingly large amount of operating capital required for a modern commercial farm. Heffernan and Jenkins (1972), drawing upon a study of the adoption of a "production package" in the United States and upon reports of second generation problems of the green revolution, suggest that the large increase in capital requirements is related to the increase in agricultural technology. Such technology usually replaces labor with capital, thus providing benefits to the larger farm organizations at the expense of the smaller units.

Twenty years ago, Nelson was quite concerned about the increasing difficulty of achieving farm ownership. He said:

> "The chief impediment to movement up the agricultural ladder is the increased amount of capital required for successful farm operation. The average price paid for a family farm under the farm ownership program of the Farmers Home Administration is approximately $8,000 ... These figures are for family size farms and represent only the cost of land and buildings. In addition the farm operator will need to have $2,500 to $3,000 worth of stock, tools and equipment if he is planning operation of a mid-western diversified wheat or corn hog farm ..." (Nelson, 1955, p. 233.)

Recently Hopkin in discussing the comparison between the average size farm and the most efficient size farm says that in Illinois, "the average size farm is 240 acres, whereas farm management specialists have indicated that the most efficient size for a one-man-cash-grain farm in central Illinois is 600 to 700 acres." (Hopkin, 1970, p. 43.) Since agricultural land in this area sells for $800 or more per acre, the operation of even the average size farm requires something over one-quarter of a million dollars. This increasingly large capital requirement has not only caused farming in this country to become a highly ascribed occupation which all but eliminates

those individuals without farm relatives from farming, but increasingly those who have been farming find it impossible to keep pace with modern agricultural technology because of their limited financial resources. While economic efficiency continues to increase in this country until today one farm worker produces enough for 45 other persons, little attention has been focused on the social consequences as they relate to the individual and his involvement in the community.

Writing in 1957, Loomis and Beegle said:

> "Insufficient studies are available to specify the relative merits of the important farming systems in the world today. We do not know the relative economic efficiency of the Russian and Central European collective farms, the large corporate farm, the family farm or the cooperative enterprises among farmers. Neither is there agreement as to the social advantages to the individual and the families living under various farming systems, not to mention the solidarity and the welfare of the nations within which they are located." (Loomis and Beegle, 1957, p.147-148.)

Inspite of urgings such as this rural sociologists have been slow to undertake the collection of empirical data which attempt to understand the social implications of the various agricultural structures. The classic study of this type done in the United States was a study of two California communities characterized by the family farm and corporate-farmhand structure done by Walter R. Goldsmith (1946) in the early 1940's.

The family farm agricultural structure is characterized by the farm family generating and controlling the capital invested in the production unit either through its own financial reserves or through private or public credit agencies. As this system of financing becomes inadequate to meet the large capital needs, two new agricultural structures are emerging which

obtain capital from sources other than those individuals providing the labor. One such method of obtaining capital is through a formal contractual agreement with an agribusiness organization. This agricultural structure is referred to by Rhodes (1969) as the "corporate-integratee" agricultural structure. In this country the poultry industry is perhaps the best example of this agricultural structure. Breimyer (1965) reported that independent producers now account for less than five percent of the broiler production in this country. Three-fourths of the broilers are produces through the corporate-integratee structure and the remaining amount is produced through the agricultural structure discussed below (the corporate-farmhand).

The specific details of the formal contract between the corporation and the persons providing the labor (or the integratee) vary widely, but in general most such contracts are characterized by having the corporation or integrating firm provide the variable in-puts (feeds, fertilizers, pharmaceuticles and livestock) while the worker supplies his land, labor and facilities. Although the management decisions are divided between the integrating firm and the worker, most of the major decisions such as the type of feed, the time of securing and delivering the birds, the quality of the product and the type of facilities are made by the integrating firm. The worker does make the decisions regarding his own work schedule and the way a particular task is performed. In his study of the structural changes in the poultry industry Plock (1965) asked the workers or integratees why they began producing on contract. In summarizing their responses he says, "it can be noted from the following distribution that economic reasons predominate, but other less than completely economic factors were also opera-

tive." (Plock, 1965, p. 18.) Breimyer has suggested that due to the changes in the marketing structure of the poultry industry increasingly in many areas the only way by which an individual can have access to a marketing facility is through such structural arrangements.

According to Rhodes (1969), the second alternative structure to the "family farm-open market" agriculture structure which we have had in the past and still find today is the "corporate-farmhand" structure in which big corporations headquartered in Chicago, New York, St. Louis and Los Angeles have complete ownership of everything and hire farmhands to provide the labor. In the corporate-farmhand structure all of the capital is supplied by persons other than those providing the labor. Such corporate organizations hire professional managers and workers just as is done in the urban industrial sector of this country.

The logical sociological question is what are the social consequences of these different agricultural structures. As noted by Wilkening (1972), several sociological dimensions need to be tapped; one of these being community integration. The purpose of this paper is to compare the community involvement of workers in the family-farm structure with workers in the corporate-integratee and the corporate-farmhand structures.

Agricultural Structures as Examples of Major Production Systems.

In many respects these three types of agricultural structures resemble the three major types of production systems which have existed in Europe since the Middle Ages. (Ashley, 1925.) The three major productive systems were the craft system, the putting-out system and the factory system. In the craft system "theoretically, at least, the master had achieved his

position not by investing capital or by appointment, but by moving up a ladder of skill and through seniority." (Schneider, 1969, p. 36) This process was similar to the mobility pattern characterized by the "agricultural ladder" in this country (Nelson, 1955). Other similarities include a division of labor which was divided on the basis of the total product rather than on the basis of the individual tasks in the process of production. This led to relatively few types of jobs in the guild system just as the term "farmer" implies little differentiation between workers in the family-farm structure. Thus labor in the guild system and labor in the family-farm structure was relatively unspecialized, unroutinized, and unstandardized. Schneider (1965) says, "the social relations at work in the guild system resemble those of the small well-knit community. These relationships were of a primary nature; that is, each worker interacted in a myriad of face to face relationships with other workers who were well known to him." (Schneider, 1965, p. 38.) Even many of the factors associated with the decline of the guild system such as the wealth being accumulated in the hands of certain masters and the change in the marketing system are similar to those factors pressing for a change in the agricultural sector today.

The second production system which has been called the putting-out system, the domestic system, or the cottage industry system, overlapped in time with both the guild system and the factory system. (Gay, 1936.) In this system the worker usually owned his own tools just as workers in the corporate-integratee agricultural structures do today. The merchant-entrepreneur almost always supplied the raw material and owned completely the finished product; again a striking similarity to the corporate-integratee

structure. The only social classes in the putting-out system were workers or entire families of workers and merchant-entrepreneurs. The relationship between the entrepreneurs and the worker was solely a cash nexus in which the worker received wages from the entrepreneur while the entrepreneur received the completed product from the worker. Both the corporate-integratee structure and the putting-out system allowed most of the work to be performed at the workers home, thus involving the family in the production process.

The corporate-farmhand structure of agriculture essentially brings the factory system to agriculture. Weber defined the factory as "a shop industry with free labor and fixed capital." (Weber, 1950, p. 163.) With the coming of the factory system the two well-known economic groupings of capitalist and labor or management and worker came into existence. The relationship between these two groups in the production process was that of a market relationship. And as Weber said, a market relationship is oriented to "advantage in exchange on the basis of self interest." (Weber, 1950, p. 212.) The work setting was moved out of the home to a centralized operation where upon a division of labor involving minute tasks developed.

Many of the questions which must and are beginning to be raised regarding the social consequences of the different structures in agriculture are very similar to those raised by social philosophers at the beginning of the industrial revolution. Drawing upon Marxian thought, without becoming involved in a lengthy discussion of Marx which would likely detract from the major purpose of this paper, one could predict that the workers in the corporate-farmhand structure would be more alienated than those

workers in the family farm structure with the workers in the corporate-integratee structure being at a point between the two extremes. Since the social relationships at work in the putting-out system were more nearly like the social relationships found in the craft system, one could further predict that workers in corporate-integratee structures will be more like workers in the family farm structure than workers in the corporate-farmhand structures when examining those dimensions of alienation related to community involvement.

The Marxian view concerning the social consequences of the different types of productive systems is not totally inconsistent with the Jeffersonian view which has been expressed in this country. This position is that community involvement especially involvement in formal voluntary organizations and the political process was in large measure related to the ownership and social relationships inherent in the family farm structure. This position was summarized in the President's Committee on Farm Tenancy (1937).

METHODOLOGY

A study of this nature necessarily involves methodological problems both in selecting the respondents and developing the measurements. The first problem is that of operationally defining each of the three structures, since the production units found in agriculture today are more correctly conceptualized as being located on a multi-dimensional continua as opposed to being discrete typologies. For example, Rhode's typology of family farm and corporate-farmhand structures draws a sharp line between the family farm in which labor, capital and management are provided by the family and

the corporate-farmhand structure in which the capital, labor and management are vested in different persons. This typology is not adequate to include what Rodefeld (1971) has called the "larger than family farm" which is owned and managed by a family, but on which the majority of the work is provided by hired non-family workers. The "larger than family farm" would have to be viewed as occupying a position between that of the family farm structure and the extreme end of the corporate-farmhand continuum. (Rodefeld refers to this extreme as the large-scale industrial farm.)

Some broiler production units also point up the possibility of overlap between the corporate-farmhand structure and the corporate-integratee structure. In the area from which data for this study were obtained all of the broiler production units had formal contracts with an agribusiness firm and fit Rhode's definition of the corporate-integratee structure. Some of the large units, however, were of such a large size that the majority of the labor could not be performed by the workers from the family. These units shared some similarities with the larger than family farms identified by Rodefeld except that they shared characteristics of the corporate-integratee structure. One of the wealthiest men in the county was also the largest integratee. One could hardly refer to him as a worker in agriculture since his major occupation was of a non-farm nature. In the present study the large broiler producing units which employed non-family workers were omitted from the study because of the classification problem.[2]

Furthermore, one faces the problem of defining farm and farmer. Is a broiler production unit a farm when it is in a rural area and not "too" large? Is it still a farm if the broiler production unit is moved to the

edge of a town, increased greatly in size, highly automated and combined with the parent organization (physically and managerially) such that it is basically undistinguishable from the integrating organization? Because some disagreement exists between the workers in corporate-integratee structures as to whether they should be considered farmers[3] and because of the unclear definition of "farmer," this study shall use the term worker and the type of structure in which he seeks employment. Thus a worker in the family farm structure by most definitions would be what is usually referred to as farmer.

On the other end of the continuum from the large-scale industrialized farm one faces the problem of determining when a production unit is too small to be considered a farm. Rather than using the census definition of farm which includes all agriculture production units of ten acres and fifty dollars worth of products annually, data for the present study were obtained from workers in those agriculture production units from which the family received the majority of its income. This eliminated part-time farmers from the analysis. In addition, only those agriculture production units which were capitalized to the extent that they might be employing reasonably modern agriculture technology were included. The purpose of this narrow definition was to select a sample of family farms which approached what Higbee (1963) called the "stereotype" of the family farm.[4]

The area selected for study focused on a county which had the largest number of contract poultry producers in the state. In addition, this county was characterized by having only one major town. This made it necessary for almost everyone to come to this community to obtain the majority of their services.

A list of all the poultry producers in the county was obtained. From this list those units which were of a size that the majority of the labor could be obtained from workers in the family were selected for study. This procedure resulted in a population of fifty broiler producers as examples of the corporate-integratee structure.

Breimeyer (1965) points out that because of the tremendous economic competition between the integrating firms, that such firms usually seek regions of the country where the farmers are economically poor since these farmers would work for less income. The area slected for this study appeared to support this position. Eighty percent of the land in this county was covered with forest leaving only 20 percent remaining for agricultural purposes. Even this 20 percent might be listed as somewhat marginal land for agriculture production. The county extension agent provided a list of the remaining farm units in the county. Based on information obtained from the agent all of the farm units which appear to be modern, commercial family farms from which the family derived most of its income were selected for inclusion in the study. The population consisted of twenty-four units. In an effort to enlarge the number of family farm structures the same procedure was followed in a contiguous county (County B). County B being a more prosperous agricultural county produced a long list of family farms meeting the criteria. A random sample of twenty-four of these farm units was drawn. Since the measures of income, age and several of the dependent variables focused on in this study reveal little difference between the workers in the family farm structures in the two counties, for purposes of this analysis the two samples were combined to make a total of forty-eight

workers in the family farm structure.

Because of the desire to confine the study to a given geographic area in an effort to control for socio-cultural differences, few large-scale industrial type firms, the best examples of the corporate-farmhand structure, were available. The decision was made to include both "larger than family farms" and "large-scale industrial farms" in the category of corporate-farmhand structures. Thus all farm units which employed two or more non-family workers for a full calendar year were included in the population of corporate-farmhand structures. Most of the agriculture units included in this analysis were of a larger than family farm nature. Only five such agriculture production units were available in County A so a list of an additional twelve agriculture production units meeting this criteria was obtained in County B. An additional twelve corporate-farmhand structures were obtained in a third county which bordered counties A and B. This county being a very productive agricultural county contained agriculture production units which employed up to thirty workers. The owner-operator or manager and two or three workers (selected randomly when there were more than three workers employed) were interviewed. Because of the lack of complete information for one of the farm units, it was excluded from the analysis. The result was a population of twenty-eight owner-managers and a sample of eighty-five workers.

Only one black worker in the population of corporate-integratee structures and one black worker in the sample of family farm structures appeared on the original list. Given the importance of race in this area, the blacks were omitted from the analysis. Since most of the workers on the corporate-farmhand structures were black, only sixteen white workers were available

for the purpose of this analysis.

FINDINGS

Drawing upon the discussion of alienation and the major productive systems best exemplified in Europe, it was predicted that agricultural structure is related to alienation, and thus also to community involvement. Attitude measurements designed to measure three dimensions of alienation have been utilized. In addition, numerous measures of the respondent's involvement in the local community have been employed. The measures of community involvement were divided into the four general headings of informal interaction; community integration; involvement in formal voluntary organizations; and political activity.

Social Status Variables.

The analysis of the social status variables suggests that a difference does exist between owner-managers, workers in corporate-farmhand, workers in corporate-integratee, and workers in family farm structures with regard to age, education and income, Table 1, Most of the difference, however, is between the owner-manager category and the remaining three categories of workers. The workers in the corporate-farmhand structure were a few years younger and received slightly less income than the workers in the corporate-integratee and family farm structures. The measures of perceived income, education, total assets and level of living relative to others in the community reveal little difference between the workers in the corporate-farmhand, corporate-integratee and family farm structures. Most of the perceived

differences with regard to these status dimensions were between the owner-managers who perceived a higher status and the remaining three categories.

Alienation Indexes.

Drawing upon Seeman's (1959) effort to extract more than one dimension of the alienation concept utilized by Marx, Dean (1961) developed indexes to measure the three dimensions of social isolation, powerlessness and normlessness. Using the same items in this study as employed by Dean, no statistically significant relationship was found between social isolation and agriculture structure, Table 2. However a relationship was found between both powerlessness and normlessness and agricultural structure. The owner-manager category had lower scores on the powerlessness index ($\bar{X}$=15.8) with the workers in corporate-farmhand and corporate-integratee structures having the highest scores on the powerlessness index ($\bar{X}$=20.4 and 21.1 respectively). Workers in the family farm structure occupied an intermediate position ($\bar{X}$=18.9). The workers in the corporate-integratee structures, however, had a higher mean powerlessness score than did the workers in the corporate-farmhand structures. The relationship between normlessness and agricultural structure was supported by the data. Workers in the corporate-farmhand structures had the highest mean score ($\bar{X}$=13.8), followed by workers in the corporate-integratee structures ($\bar{X}$=13.1) and workers in the family farm structure ($\bar{X}$=12.1). Again the owner-managers had the lowest score on the normlessness index ($\bar{X}$=9.6). Although the relationship is not large (Eta^2=.13) one must conclude that powerlessness and normlessness are related to the agricultural structure.[5]

Informal Interaction.

Twelve measures of informal interaction are utilized to further test the relationship between social isolation and agricultural structure, Table 3. The data indicate no statistically significant relationship between agricultural structure and 1) the number of the respondent's best friends living in the community, 2) the number of the respondent's adult relatives living in the community, 3) whether the respondent visited more frequently with friends or relatives, 4) the frequency of visits the respondent had in the homes of friends, 5) the frequency of visits the respondent had in the homes of relatives, and 6) the frequency with which the respondents borrowed from relatives.

Differences did exist between the four categories of respondents with regard to 1) the frequency of informal visiting with friends not confined to the home, 2) frequency of recreational activity involving friends, 3) frequency of recreational activity involving relatives and 4) frequency of borrowing from friends. The general pattern was that workers in corporate-farmhand structures experienced the least informal interaction, followed by workers in corporate-integratee structures and workers in family farm structures. The category of owner-manager had the highest mean for the measures of informal participation.

The results of this set of measures would seem to suggest that while workers in corporate-farmhand structures are not totally isolated from informal interaction in the community relative to the other categories, their interaction with others appears to take place in situations which might be viewed as more private (taking place in homes) and less community oriented.

(Many recreational activities such as hunting and commercial recreation take place outside the home in the larger community setting.) The final measure employed to measure informal interaction asked the respondents how satisfied they were with their social activities. Although the test of association indicates that the relationship between agricultural structure and satisfaction with social activities is not very strong (Eta^2=.06), a relationship was evident. The owner-managers were most satisfied with their social activities, while the workers in the corporate-farmhand structures were least satisfied. Contrary to the prediction, workers in the corporate-integratee structures were more satisfied than workers in the family farm structure.

Community Integration.

Another set of seven items measuring community integration was designed to ascertain the respondents' attitude toward their communities and the extent of their involvement beyond informal interaction with relatives and close friends. The only measure of the seven which did not reveal a statistically significant relationship between agricultural structure and community integration was concerned with whether the respondent felt free to ask favors from almost anyone in the community, Table 4. For the remaining six items the workers in corporate-farmhand structures appear to be less integrated into the community than either of the other three categories. Workers in the corporate-farmhand structures indicated that they 1) knew people living in the local area less well, 2) felt less free to stop and visit with almost anyone in the community, 3) felt less free to stop and visit almost

anywhere in the community, 4) felt less obligated to attend most funerals in the community. In addition they 5) felt it would make less difference if they had to move from the area and 6) they felt it would be less difficult to find a better place to live than did the respondents in the remaining three categories. The data suggest that the workers in the corporate-farmhand structure are less integrated into the total community.

Much less difference was noted between the workers in the corporate-integratee structure, workers in family farm structure and the owner-managers with regard to community integration. Contrary to what was predicted the workers in the corporate-integratee structures were not less integrated than the other two categories. Workers in the corporate-integratee structures had a higher mean score than the other two categories for the following variables: 1) knowing people living in the area quite well, 2) feeling free to stop and visit almost everyone in the community and 3) feeling at home anywhere in the community. The workers in the corporate-integratee structure also had the highest mean score in response to the question of whether it would be hard to find a better place to live. As one might expect, a higher percentage of the owner-managers indicated that it would make a difference if they had to move than was true of any of the other categories. The workers in corporate-integratee structures had the highest mean score for the item asking whether during their last discussion of community affairs they were asked for their opinion, or whether they asked for someone else's opinion or both, suggesting that relative to the other categories the opinions of the workers in the corporate-integratee structures are sought. The lower mean score for the second measure of community influence would suggest,

however, that the workers in corporate-integratee structures were less likely to be asked for advise about community affairs than either of the workers in the family farm structures or the owner-managers. Both of these perceived community influence measures revealed a statistically significant relationship with agricultural structure.

The conclusion seems to be that while workers in corporate-farmhand structures are less integrated into the community, no consistent difference exists between the remaining three categories. Certainly the workers in the corporate-integratee structures are actively involved in the life of the rural community.

Formal Voluntary Organization Involvement.

Since formal voluntary organizations play an important role in organizing people for community action and indeed for the whole political process in this country (Kornhauser, 1959), involvement in formal voluntary organizations is important from the standpoint of the community. Individual involvement in such organizations should also be related to the sense of powerlessness felt by the individual.

Two measures of involvement in formal voluntary organizations were employed. The first measure simply determined the number of memberships the respondent had in various types of organizations. The second measure employed the procedure outlined by Chapin (1939) in which individuals received a weighted score based on membership, payment of dues, committee assignments and office holdings. This measure is referred to as the "participation" measure.

The voluntary organizations were divided into the five major classes of farm organizations, school organizations, church organizations, Fraternal organizations, and social and civic organizations. In addition, information on church membership and church attendence was obtained.

No difference was found between the agricultural structure and both (1) membership and (2) participation in school organizations, (3) membership in church organizations, (4) participation in church organizations, (5) participation in Fraternal organizations and (6) church membership, Table 5. A relatively large association (Eta^2=.30) was found between agricultural structures and participation in farm organizations. In addition, a relationship exists between agricultural structure and membership in farm organizations, membership and participation in Fraternal organizations, and membership in social and civic organizations. Church membership revealed no difference, but church attendance was related to agricultural structure.

The strongest association (Eta^2=.32) was between agricultural structure and the number of elected or appointed community positions held during the last five years. No one in the corporate-farmhand structure indicated having held such a position and the mean score was very low for workers in the corporate-integratee structure ($\bar{X}$=.06). The mean number of such positions for workers in the family farm structure was .51 suggesting on the average one out of every two workers in the family farm structure held such a position. At the other extreme, the owner-managers had a mean score of 1.21 for elected or appointed community positions.

Although the statistical technique employed in this study did not yield a significant relationship between agricultural structure and involvement in

many of the voluntary organizations, one rather obvious feature is that the workers in the corporate-farmhand structures do not provide the leadership nor the manpower for voluntary organizations in the community. When adding up the mean membership scores for the five types of voluntary organizations (including church related voluntary organizations, but excluding church membership per se) the sum is .37 or approximately one membership in a voluntary organization for every three respondents. Further, membership participation index score for the group of workers is .88 suggesting that even in those organizations in which they report memberships, most of the leadership is contributed by persons other than the workers in the corporate-farmhand structures. By way of contrast, owner-managers had a mean membership score for the five organizations of 3.61 and a membership participation score of 18.72.

Political Involvement.

Involvement in the political process is another measure of the respondents' sense of powerlessness and a measure of their involvement in the activities and decision-making of their local community and the larger society. A series of nine items designed to measure the respondents' involvement in the American political process were utilized. While the items measured are important to the national political process, the items primarily measure political activity at the local level. Only two of the nine items (held office in a political party and attend political meetings and rallies) did not reveal a statistically significant relationship with agricultural structure, Table 6. The index value obtained by weighting each of the nine

items equally, summarizes the results. A reasonably high relationship (Eta^2= .20) exists between agricultural structure and this type of political involvement. Again the workers in the corporate-farmhand structure had the lower mean score ($\bar{X}$=.88) and owner-managers had the highest mean score ($\bar{X}$=4.21) with the workers in the corporate-integratee and family farm structures occupying intermediate positions. Contrary to the prediction, the workers in the corporate-integratee structure had a higher mean score ($\bar{X}$=2.26) than the workers in the family farm structure ($\bar{X}$=1.53).

Another measure of political involvement employed was that of determining the frequency of voting. Data in Table 6 indicate that frequency of voting is related to agricultural structure (Eta^2 range from .10 to .22). Most of the differences in frequency in voting, however, was between workers in corporate-farmhand structures and the other three categories. Little difference was observed between the other three categories. The respondents were also asked: "Generally speaking, how interested are you in 1) local, 2) state and 3) national politics?" Again a statistically significant relationship was found with agricultural structure. Following the pattern above, the workers in corporate-farmhand structures had the lowest mean score, while little difference was observed between workers in corporate-integratee and family farm structures. Owner-managers had the highest mean score.

The data suggest rather clearly that there is a relationship between political involvement and the corporate-farmhand agricultural structure. Certainly the workers in such structures are much less involved in the political process. However, workers in the corporate-integratee structures

are not as removed from the political process as one might expect, at least when compared to workers in the family farm structure.

CONCLUSIONS

Drawing upon a review of the three major production systems (i.e. guild system, putting-out system and factory system) which share many similarities to the family farm structure and the two alternatives of corporate-integratee and corporate-farmhand structures, it was predicted that rank and file workers in corporate-farmhand structures would be most alienated and consequently least involved in the activities of the community. Because the social relationships in the work setting of the putting-out system were more like those of the guild system than the factory system, it was predicted that the workers in the corporate-integratee system would be more like workers in the family farm structure than the corporate-farmhand structure. Data from this study supports the prediction. Workers in the corporate-farmhand structure were less involved in the activities of the community than workers in either the corporate-integratee or the family farm structures. In addition, the perceptions of the world held by the workers in the corporate-farmhand structure were more similar to those held by alienated persons than the perceptions held by workers in the corporate-integratee and family farm structures. Since the study focused more on a comparison of the workers than on a description of them, the results should not be interpreted to suggest that the workers in the corporate-farmhand structures were totally uninvolved. Rather their involvement was much less than that of the workers in the corporate-integratee and family farm structures.

Only with regard to the set of measures concerning participation in formal voluntary organizations did the workers in the corporate-farmhand structures appear to be basically uninvolved. In fact no major difference was found between workers in corporate-farmhand structures compared to the other two categories of workers with regard to attitudes designed to measure social isolation and certain types of informal visiting; namely, informal interaction which depended very little on having contact in the larger community.

In summarizing this data concerning agricultural structures and community involvement, four interrelated conclusions seem to emerge. First, workers in corporate-farmhand structures are much less involved in the formal and political activities of the community than are the workers in family farm structures. Secondly, owner-managers in the corporate-farmhand structures are much more involved in the formal and political aspects of the community than workers in the family farm structure. Thirdly, the first two conclusions suggest rather clearly that the corporate-farmhand structure, relative to the family farm structure, begins to emphasize the two extremes with regard to community and political involvement. This type of agricultural structure suggests the development of two rather distinct classes for rural America which undermines the traditional American ideal of equality. The fourth conclusion is that little difference exists between workers in the corporate-integratee structure and workers in the family farm structure with regard to community involvement.

The generalizations one can draw from a case study carried out in one specific geographical area are limited. Certainly such studies need to be made in other settings. One can also be concerned about including only

sixteen workers in a study of this nature, and certainly one can ask questions about the sixty-nine black workers not analyzed. It should be noted, however, that only two of the twenty-eight corporate-farmhand organizational units in this study were of the large-scale industrial farm nature, the remaining were best described as larger than family farms. What differences would be noted if the large-scale industrial farms were analyzed rather than larger than family farms?

IMPLICATIONS FOR DEVELOPMENT

Before one can begin to discuss the implications for development of the trend toward the increased industrialization of agriculture, one must face the problem of defining development; a problem long overlooked in the agricultural sector of the United States. Agricultural development in the country has usually been defined in economic terms such as the number of non-farm persons each worker in agriculture can support or the percent of the family income which must be expended for food. By these criteria, the increased industrialization of agriculture has been most effective in achieving development. If social criteria are incorporated into the evaluation of development, the evaluation of the role of increased industrialization in agriculture is less clear, given the social problems facing both rural and urban America. Many of the problems in the rural and urban sectors share common roots in the industrialization of agriculture.

In the past increased industrialization of agriculture has taken place within the family farm structure with the result being a reduction in the number of farm units and the elimination of this occupation as an alternative

for a growing number of persons. But for those who remained in the agricultural production sector, the increased industrialization of agriculture has not greatly altered the work setting or the workers' social relationships.

The continued industrialization of agriculture, however, carries with it the need for increased capital and increased coordination. Current evidence seems to suggest that the family farm structure is no longer adequate to provide the necessary capital and coordination. The continued industrialization of agriculture will require not just changes within the family farm structure as we have seen in the past, but instead will call forth new forms of organization which will obviously have important social consequences.

This study has sought to compare two increasingly prevalent, alternative agricultural structures to the family farm structure with regard to community integration. Additional questions need to be raised concerning these agricultural structures and their relationship to other social indicators or indicators of quality of life. In addition, other possible organizational structures some of which are more prevalent in other societies than in the United States (i.e. cooperative structures and collective farm structures) need to be examined.

FOOTNOTES

2. The criteria used was that of eliminating all corporate- integratee structures which produced 60,000 or more birds per year. Eleven of the broiler producing units originally identified in the county were thus excluded from the study. Technically, the population of corporate-integratee structures included 6 breeding poultry units, 4 commercial poultry units and 40 broiler producing units. Since the same organizational structure and indeed the same integrating firms were involved, for purposes of this study there was no apparent reason to differentiate between the three types.

3. In the current study nearly all of the workers in the corporate-integratee structures felt they were farmers; but one-third of the workers in the family farm structure did not consider the workers in the corporate-integratee structure to be farmers. In Ploch's (1965) study of contract broiler growers, one-third of the growers felt they were "farmers".

4. "It is the Upper Middle Class of 483,000 which corresponds better than any other group to that cornfed stereotype of the family homestead surrounded by green fields and fat hogs, presided over by a jolly man in a straw hat and overalls." (Higbee, 1963,51.) This class of farms (Class III commercial farmers by census classification) represents 13 percent of the crops and livestock in the country. The value of products sold by Class III farms is $10,000 - $20,000. The median value of products sold for the family farm units in this study is $8,000.

5. When the results of this study are compared to the results obtained by Dean in 1965, from a sample of males at Denison University, all four categories of respondents in this study have a lower mean social isolation score than do the university males. However, all of the

categories, even the owner-manager category with a mean score of 15,8 had a larger mean score for the measure of powerlessness than did the university students. It should be noted that most of the items composing the powerlessness scale were concerned with societal or world events and not local issues. With regard to normlessness, only the owner-manager category had a lower mean score than did the university males.

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Table 1: Relationship Between Agriculture Structure and Dimensions of Social Status

Status Dimensions	Agricultural Structure: Corporate-farmhand owner-manager	Corporate-farmhand worker	Corporate-integratee	Family farm	F[a]	Eta^2
	. . . . . mean score					
Objective Measures						
income	9.85 (27)[b]	4.69 (16)	6.80 (49)	6.16 (43)	19.30*	.31
education	13.25 (28)	9.69 (16)	9.67 (49)	9.98 (44)	9.20*	.17
age	48.21 (28)	42.12 (16)	50.67 (49)	54.92 (45)	4.59*	.09
Subjective Measures						
perceived income	2.90 (28)	2.06 (16)	1.94 (49)	1.88 (43)	9.63*	.18
perceived total assets	2.86 (28)	1.93 (15)	2.08 (49)	1.96 (44)	7.55*	.15
perceived education	2.64 (28)	1.75 (16)	1.88 (49)	1.66 (44)	6.53*	.13
perceived level of living	2.82 (28)	2.06 (16)	2.04 (49)	2.00 (44)	8.81*	.17

[a] F tests for analysis of variance

[b] Number of cases from which mean was calculated

* P is less than .05

Table 2: Relationship Between Agriculture Structure and Alienation.

Alienation Measures	Agricultural Structure: Corporate-farmhand: owner-manager	Agricultural Structure: Corporate-farmhand: worker	Agricultural Structure: Corporate-integratee	Agricultural Structure: Family farm	F[a]	Eta[2]	Denison Univ. Males
	. . . . . mean score						
Social isolation	13.63 (27)[b]	14.06 (16)	15.37 (46)	14.80 (39)	1.35	.03	17.67
Powerlessness	15.85 (26)	20.38 (16)	21.15 (46)	18.92 (39)	5.98*	.13	14.75
Normlessness	9.56 (27)	13.81 (16)	13.11 (45)	12.13 (39)	5.90*	.13	10.75

[a] F tests for analysis of variance

[b] Number of cases from which mean was calculated

* P is less than .05

Table 3: Relationship Between Agriculture Structure and Informal Interaction.

Informal Interaction Measures	Agricultural Structure: Corporate-farmhand owner-manager	Corporate-farmhand worker	Corporate-Integratee	Family Farm	F[a]	Eta[2]
	. . . . . mean score					
Number of best friends in community	3.10[b] (28)	2.93 (15)	3.16 (49)	3.04 (45)	.52	.01
Number of adult relatives in community	5.25 (28)	3.63 (16)	4.91 (46)	4.25 (44)	2.00	.04
Visit more with friends than relatives	1.78 (28)	1.88 (16)	1.80 (48)	1.96 (44)	.44	.01
Frequency of visits in home of friends	3.75 (27)	3.38 (16)	3.33 (49)	3.53 (45)	2.18	.05
Frequency of visits in home of relatives	3.29 (28)	3.25 (16)	3.25 (48)	3.21 (43)	.04	.00
Frequency of borrowing from friends	5.04 (28)	3.88 (16)	3.96 (49)	4.05 (45)	3.71*	.67
Frequency of borrowing from relatives	3.00 (28)	2.56 (16)	2.78 (49)	2.44 (43)	1.48	.03
Frequency of informal group gatherings	3.57 (28)	3.06 (16)	2.74 (49)	3.22 (45)	4.96*	.10
Frequency of recreational activities with friends	5.04 (28)	3.88 (16)	3.96 (49)	4.05 (44)	3.54*	.07

Table 3 (continued)

Informal Interaction Measures	Agricultural Structure: Corporate-farmhand owner-manager	Corporate-farmhand worker	Corporate-integratee	Family farm	F[a]	Eta[2]
	mean score					
Frequency of recreational activities with relatives	3.28 (28)	2.50 (16)	2.65 (49)	2.48 (42)	3.64*	.08
Satisfaction with social activities	2.82 (28)	2.32 (16)	2.55 (49)	2.37 (45)	3.02*	.06

[a] F tests for analysis of variance

[b] Number of cases from which mean was calculated

* P is less than .05

Table 4: Relationship Between Agricultural Structure and Community Integration.

Community Integration Measure	Agricultural Structure: Corporate-farmhand owner-manager	Corporate-farmhand worker	Corporate-integratee	Family farm	F[a]	Eta[2]
	mean score					
Know people living in area quite well	2.61 (28)[b]	2.31 (16)	2.86 (49)	2.68 (44)	4.52*	.09
Feel free to visit with almost everyone	2.86 (28)	2.25 (16)	2.90 (49)	2.90 (43)	15.88*	.26
Feel at home anywhere in the community	2.86 (28)	2.50 (16)	2.86 (49)	2.82 (44)	2.91*	.06
Do not mind asking for help	3.36 (28)	2.88 (16)	3.16 (49)	3.02 (44)	.83	.01
Feel should attend most Funerals	1.79 (28)	1.88 (16)	2.47 (49)	2.22 (45)	4.12*	.08
Perceived source of advice	1.71 (28)	.94 (16)	1.06 (49)	1.16 (45)	8.62*	.16
Perceived importance of opinion	1.57 (28)	1.00 (13)	1.70 (43)	1.22 (45)	10.10*	.20
Make a difference if move from area	2.45 (27)	1.81 (16)	2.47 (49)	2.54 (44)	3.12*	.06
Hard to find better place to live	2.36 (28)	2.00 (16)	2.59 (49)	2.64 (44)	3.11*	.67

[a] F tests for analysis of variance

[b] Number of cases from which mean was calculated

* P is less than .05

Table 5: Relationship Between Agricultural Structure and Involvement in Formal Voluntary Organizations.

Involvement in Formal Voluntary Organizations	Agricultural Structure				F[a]	Eta[2]
	Corporate-farmhand		Corporate-integratee	Family farm		
	owner-manager	worker				
	mean score					
Membership in farm organization	1.82 (28)[b]	.12 (16)	.33 (49)	.76 (45)	24.24*	.35
Participation in Farm organization	10.4 (28)	.38 (16)	1.20 (49)	3.29 (45)	18.68*	.30
Membership in school organization	.18 (28)	.06 (16)	.10 (49)	.22 (45)	1.03	.02
Participation in school organization	.75 (28)	.19 (16)	.80 (49)	.76 (45)	.30	.01
Membership in church organization	.54 (28)	.19 (16)	.22 (49)	.44 (45)	2.15	.05
Participation in church organization	3.18 (28)	.31 (16)	1.84 (49)	2.56 (45)	1.09	.02
Membership in fraternal organization	.39 (28)	.00 (16)	.14 (49)	.16 (45)	3.72*	.08
Participation in fraternal organization	1.25 (28)	.00 (16)	.51 (49)	.42 (45)	1.39	.03
Membership in social or civic organization	.68 (28)	.00 (16)	.14 (49)	.11 (45)	5.91*	.12

Table 5 (continued)

Involvement in Formal Voluntary Organization	Agricultural Structure: Corporate-farmhand owner-manager	Corporate-farmhand worker	Corporate-integratee	Family farm	F[a]	Eta[2]
	..... mean score					
Participation in social or civic organizations	3.14 (28)	.00 (16)	1.26 (49)	.40 (45)	2.68*	.05
Elected or appointed position in last five years	1.21 (28)	.00 (16)	.06 (49)	.51 (45)	20.62*	.19
Church membership	1.00 (28)	1.06 (16)	1.04 (49)	1.04 (45)	.49	.01
Church attendance	3.65 (28)	3.43 (16)	3.22 (49)	3.61 (45)	2.80*	.05

[a] F tests for analysis of variance

[b] Number of cases from which mean was calculated

* P is less than .05

Table 6: Relationship Between Agricultural Structure and Political Activity

Political Activity	Agricultural Structure: Corporate-farmhand: owner-manager	Agricultural Structure: Corporate-farmhand: worker	Agricultural Structure: Corporate-integratee	Agricultural Structure: Family farm	F[a]	Eta[2]
	mean score					
Voting						
voted in last governor's election	.96 (28)[b]	.69 (16)	.96 (49)	.94 (45)	4.91*	.10
voted in last Presidential election	.97 (28)	.63 (16)	.94 (48)	.91 (45)	4.76*	.10
Proportion of Presidential election in which voted	3.89 (28)	3.06 (16)	3.88 (48)	3.80 (45)	7.10*	.14
Proportion of governor's elections in which voted	3.89 (28)	3.06 (16)	3.83 (48)	3.80 (45)	6.61*	.13
Proportion of local elections in which voted	3.86 (28)	2.69 (16)	3.77 (48)	3.80 (45)	12.14*	.22
Proportion of school board elections in which voted	3.82 (28)	2.69 (16)	3.69 (48)	3.78 (45)	8.48*	.16
Activities						
Belong to a political party	.48 (27)	.12 (16)	.37 (48)	.22 (45)	2.97*	.06
Held office in political party	.14 (27)	.00 (16)	.04 (47)	.04 (45)	1.77	.04

Table 6 (continued)

Political Activity	Agricultural Structure: Corporate-farmhand: owner-manager	Agricultural Structure: Corporate-farmhand: worker	Agricultural Structure: Corporate-integratee	Agricultural Structure: Family farm	F[a]	Eta[2]
	. . . . . mean score					
Elected or appointed to government job	.33 (27)	.00 (16)	.06 (47)	.11 (45)	5.29*	.11
given toward campaign	.70 (27)	.12 (16)	.23 (47)	.16 (45)	12.10*	.22
gone to political meetings and rallies	.30 (27)	.06 (16)	.22 (46)	.27 (45)	1.19	.03
Worked in a campaign	.66 (27)	.06 (16)	.26 (47)	.16 (45)	6.76*	.13
Wore political button used car sticker	.44 (27)	.25 (16)	.37 (47)	.16 (45)	2.84*	.06
Talked to people to influence their vote	.70 (27)	.31 (16)	.47 (47)	.24 (45)	5.79*	.12
Written letter to elected representatives	.70 (27)	.00 (16)	.13 (46)	.18 (45)	18.52*	.30
Index of above political activities	4.21 (27)	.38 (16)	2.26 (47)	1.53 (45)	10.72*	.20

Table 6 (continued)

Political Activity	Agricultural Structure: Corporate-farmhand owner-manager	Agricultural Structure: Corporate-farmhand worker	Agricultural Structure: Corporate-integratee	Agricultural Structure: Family farm	F[a]	Eta[2]
	. . . . . mean score					
Perceived interest in local politics	1.88 (28)	1.00 (16)	1.51 (49)	1.62 (45)	6.09*	.12
Perceived interest in state politics	1.86 (28)	1.19 (16)	1.59 (49)	1.60 (45)	4.05*	.08
Perceived interest in national politics	1.90 (28)	1.12 (16)	1.61 (49)	1.58 (45)	5.09*	.10

[a] F tests for analysis of variance

[b] Number of cases from which mean was calculated

* P is less than .05